

# FAIRFAX WATERSHED WATCH

Fairfax County Volunteer Stream Monitoring Program Newsletter  
Northern Virginia Soil and Water Conservation District  
12055 Government Center Parkway, Suite 905 Fairfax VA 22035 (703) 324-1460  
Fall 2003

## HOW STREAM MONITORING CHANGED MY LIFE

*Deborah Buffington*



In the summer of 2000, I was a bored, frustrated biology teacher. I signed up for a week-long seminar sponsored by Northern Virginia Soil and Water Conservation District, Save Our Streams, Earth Force and GLOBE, looking for

some new ways to make teaching more fun for both my students and myself. During that week, I learned about macroinvertebrates and watersheds, about stream monitoring and other environmental monitoring techniques. I soon became a certified stream monitor. At first I didn't really think it was possible to incorporate water quality monitoring into a classroom setting. However, I thought it might work in a smaller setting such as a club.

When the 2000-2001 school year began, I decided to start a new environmental club at G. C. Marshall High School in Falls Church. A little worried that no one would come, I gave extra credit to all my biology students who attended an opening program given by Carrie Jenkins, a representative of Earth Force. Over 50 students came to that first meeting. I asked the administration for a small loan (to be repaid with fundraising projects) to purchase chemical test kits and began to teach students about water quality. Much to my surprise, I found a small stream within walking distance to the school that club members have been monitoring since then. From that beginning, the Earth Force club membership has grown each year. As a result of starting this club, I have met amazing, motivated,

environmentally concerned students whom I never would have met in my classes.

The following year I was able to change from teaching biology to teaching geo-

systems. In gaining a new position, I decided to pursue a Masters of Science in Geosciences through a distance learning program from Mississippi State University. Water monitoring became an integral part of both the curriculum I was teaching as well as a large part of my Master's program. I led several field trips to Hemlock Overlook Regional Park to teach students about macroinvertebrate identification and water chemistry testing.

In 2002, I applied for a grant from the Virginia Department of Environmental Quality to purchase equipment to increase the monitoring tests being conducted by the Earth Force students.

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We were given \$850. During the 2002-2003 year, I wrote and was awarded a grant for \$1000 to take a larger group of students to the Shenandoah National Park to study how surface water quality affects groundwater. We also wanted to see how the Shenandoah River affected the Potomac River that eventually affects the Chesapeake Bay.

It was truly thrilling to watch students get excited to put on waders to stand in the stream and capture macroinvertebrates and test water quality. I also have had a great deal of satisfaction in seeing students mature as a result of their years in Earth Force and receive scholarships to college to pursue environmental careers. Stream monitoring gave my teaching new direction, new energy and fulfillment.

During the summer of 2003, I completed my Master's program in San Salvador studying how surface water quality affects karst development. I never would have dreamed that when I took a summer environmental monitoring seminar four years ago, it would change the direction of my career and bring so much personal satisfaction and pleasure.



### CENTREVILLE DAY

The Friends of Little Rocky Run continued their tradition of participating in Centreville Day. For interested visitors, they presented an interactive watershed model to teach how our activities on land affect water quality in nearby streams and lakes.



They also had an aquarium with live stream dwelling bugs. Kids and adults alike enjoyed handling the stream bugs and simulating a rainstorm with the model. The Friends marched in the parade



carrying a banner, nets, and signs such as "Ask us what we found in your local stream!" Even the two dogs sported

reminders to "Scoop the Poop!" Centreville Day was a great opportunity for the Friends of Little Rocky Run to show their community spirit and share their environmental message with the locals.

Many of their volunteers also monitor a stream or two through our program. Thanks to the following volunteers for educating local residents: Anne Brodeur, Blythe Merritt, Charlotte Seid, Linda Blake, Lynn Foster, Ned Foster and Renee Kitt.



### GREAT FALLS DISCOVERY DAY

NVSWCD participated in the Great Falls National Park's Discovery Day on October 4, 2003. Using the watershed model, people learned about their "watershed address" and the effects of polluted runoff. They later observed and practiced monitoring in the field with an outdoor demonstration. Visitors also enjoyed performances by Billy B, a creative singer and guitarist who educates children through his environmental songs. Thanks to Charlotte Seid and Tanya O'Rourke for volunteering their time.

### POTOMAC RIVER FORUM

*Charlotte Seid*

Chuck Little once said, "Behind every conservation movement is a great writer." Certainly one of the great writers behind river conservation is Tim Palmer, a dedicated river advocate and author of fourteen books, including *Lifelines: The Case for River Conservation*, *Endangered Rivers* and the



*Conservation Movement*, and *The Wild and Scenic Rivers of America*. Named one of the Top Ten River Conservationists, Palmer received the National Outdoor Book Award, Lifetime Achievement Award, and Peter Burroughs Award for his writings on America's rivers. "He has been around to offer inspiration to river projects of any size," said Glenn Eugster, Assistant Regional Director for the National Park Service, "No one else comes close to his skills and deep passion."

On October 20, 2003, Palmer presented a spectacular slideshow based on *Lifelines* for the first Potomac River Forum at the Arlington County Central Library. The forum, sponsored by the Friends of the Potomac, will help communities protect their natural resources through leadership, responsibility, and stewardship in their watersheds. The next seven forums will investigate the issues facing the Potomac and eventually produce a State of the Potomac Report.

"There is purity, beauty, and magic in our rivers," Palmer began, "We need our rivers—we can't live without them." Palmer illustrated the value of our waters with stunning photographs of rivers across the country—a young boy with a string of bass caught from the Juniata River, a quiet canoe on the Susquehanna, and the magnificent Grand Canyon carved by the Colorado. From the Arctic Circle to the Mexican border, rivers provide recreation and unsurpassed natural beauty.

Palmer, who often relaxed on the Potomac while at Georgetown University, recalled, "The Potomac was a lifesaver to me." He traced the river's 285-mile path, beginning at its modest headwaters near Monterey, VA. The South Branch flows through Seneca Rocks and scenic Appalachia before merging with the North Branch at Cumberland. Palmer then showed the picturesque morning fog at Hancock and a striking sunset over Harper's Ferry Gap. Finally, he discussed Great Falls, our celebrated attraction and kayaking site. "If Great Falls were in Yellowstone Park, it would be one of the major features."

Rivers support thriving ecosystems of diverse plant and animal life. Snapping turtles, frogs, trout, and white sturgeon, the largest freshwater fish in North America, all depend on healthy rivers. Cottonwood trees, the "kings of riparian ecosystems," are keystone species that stabilize riverbanks with their roots. Since their seeds need fresh silt to germinate, these trees are unfortunately endangered by dams that alter the flood cycle.

Due to threats such as dams, pollution, and exotic species, only 2% of America's rivers are in their natural condition. Pulp mills and sewage threaten many rivers such as the Rio Grande, where untreated sewage contaminates the water and aquatic life. Several alarming pictures showed oily pesticide residues on the Sacramento River and algae blooms on the Mississippi. Once the "Father of Waters" to the Native Americans, the Mississippi River is now known as "Cancer Alley" for the toxic wastes in its lower valley.

To show the impacts of logging, Palmer compared two streams after a flood in 1972. The first was a pristine stream that ran fast and clear through a protected forest. The second stream, however, had been affected by logging in the watershed. In the streambed, alder leaves stood on one-inch pedestals of soil, where the rain had washed away everything except the patches under the leaves. Palmer remarked sadly, "Imagine what a full forest could have done."

Palmer concluded his presentation with a message to today's river conservationists. While, "once, river conservation was defined by dam fighting," our generation can protect our waters with initiatives such as proper floodplain zoning, channel stabilization, and water quality monitoring. He highlighted several extraordinary volunteers—from river guides to lobbyists—noting, "Fortunately, there are lots of people like you." Most importantly, we must remember that "our rivers are lifelines, not pipelines or wastelines." "Do whatever you can," Palmer encouraged, "If we don't take care of these places, nobody will."



## INTERNATIONAL COASTAL CLEANUP

This fall, volunteers around the world collected trash as part of the International Coastal Cleanup (ICC), sponsored by the Ocean Conservancy. This annual, worldwide effort recruits people all over the globe to remove debris from the oceans, beaches, and waterways.

Due to careless littering inland, hundreds of pounds of trash enter the oceans, where they threaten aquatic ecosystems. Plastics, monofilament lines, and other synthetic materials are not only unattractive to beachgoers, but they are dangerous to marine life. By removing trash from local streams and rivers, we prevent the waste from accumulating on Virginia's beaches and in the Chesapeake Bay. Volunteers keep records of the amount and type of trash they collect. The data will help the Ocean Conservancy create ocean policy, initiate recycling programs, and educate citizens. For more information on the International Coastal Cleanup, visit [www.coastalcleanup.org](http://www.coastalcleanup.org)

### NEWLY CERTIFIED MONITORS:

Alex Kim  
Cathy Saunders  
David Lansbury

### CLEANUP SITE CAPTAINS:

Cathy Saunders  
Diana Saccone  
Eva Arciszewski  
Jo Acosta  
Nick Steidl

### SOME CLEANUP VOLUNTEERS:

Alex Clark  
Alex Kim  
Angelia Amos  
Becca Saalbach  
Charlotte Seid  
Dana Huff  
Ellen Ingson  
Eva Arciszewski  
Janet Saccone  
Jeff Cornell  
Jo Acosta  
Joel Clark  
Julie Kim  
Kelsey Clark

Linda McConnell  
Lindsay Turner  
Mark Powell  
Milena Arciszewski  
Modupe Tdris  
Nina Andgren  
Sandra Tassi  
Shannon Kerrigan

### SUMMER 2003 MONITORS:

Alex Kim  
Allison Austin  
Amr Majul  
Amy Noack  
Andrew Kim  
Anita Pease  
Anna Roherty  
Barbara Townsend  
Beth Stein  
Betty Andrews  
Blythe Merritt  
Bob Bidwell  
Brian Falatko  
Brian Petty  
Burt Weisman  
Carol Badilla  
Carol Hadlock  
Cathy Saunders  
Charlotte Seid  
Chris Ruck  
Christine Okano

Dale McGrath  
Dan Veltri  
Daren Carlisle  
Dave Greenacre  
Deana Crumbling  
Deana M. Demichelis  
Diana Saccone  
Dorris Martin  
Ed Grace  
Ellie Coddling  
Emily Martin  
Fran Grace  
George Crump  
Ivy Main  
Jacob Henry  
Janet Feutz  
Jeff Beaupre  
Jeff Cornell  
Jennifer Norman  
Jim McGlone  
Joanie Engel  
Joanne Kao  
Joella Adams  
Julie Kim  
Karen Stein-Monroe  
Katherine Connors  
Ken Andrews  
Kim Angeli  
Krystal Kearns  
Laura Grape  
Llewelyn Engel  
Lori Seeley

Lucy Seeley  
Mai-Lan Aram  
Manish Bhartiya  
Mark Miller  
Martha Scholl  
Micheal Dean  
Mike Norvell  
Mitch Martin  
Nancy Tray  
Natalie Gozzerd  
Paul F. Gardner  
Rick Marks  
Robert Andrews  
Bob Bidwell Jr.  
Ron Marafioti  
Sally Meyer  
Sean Kluckman  
Sharon Henry  
Stefanie Kline  
Steve Falatko  
Stuart Carter  
Sue Beffel  
Susan Seid  
Suzanne Dorick  
Sylvia Carvett  
Ted Moline  
Teresa Dean

